FACT SHEET

as required by LAC 33:IX.3111 for major LPDES facilities, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0020257; AI 19907; PER20090002** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

I. **THE APPLICANT IS:** City of Bunkie
City of Bunkie Wastewater Treatment Plant
P.O. Box 630
Bunkie, Louisiana 71322

II. **PREPARED BY:** Darlene Bernard

DATE PREPARED: February 9, 2010

III. **PERMIT ACTION:** reissue LPDES permit LA0020257, AI 19907; PER20090002

LPDES application received: July 31, 2009

Previous LPDES permit effective: February 1, 2005
Previous LPDES permit expired: January 31, 2010

IV. **FACILITY INFORMATION:**

A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the City of Bunkie.

B. The permit application does not indicate the receipt of industrial wastewater.

C. The facility is located at 656 East Oak Street, in Bunkie, Avoyelles Parish.

D. The treatment process consists of a bar screen with grit removal through a grit chamber to oxidation ditches then to final clarifiers with chlorination and dechlorination.

E. Outfall 001

Discharge Location: Latitude 30° 57' 37" North
Longitude 92° 10' 44" West

Description: treated sanitary wastewater

Design Capacity: 1.00 MGD

Type of Flow Measurement which the facility is currently using:

Totalizer

V. RECEIVING WATERS:

The discharge is into an unnamed ditch, thence into Bayou Dulac, thence into Bayou Des Glaises in Subsegment 060212 of the Vermilion-Teche River Basin. This segment is not listed on the 303(d) list of impaired waterbodies.

The **critical low flow** (7Q10) of Bayou Dulac is 0 cfs. In accordance with Implementation Policy, when the critical low flow equals 0 cfs, 0.1 cfs will be used as the 7Q10 flow and 1 cfs will be used as the harmonic mean flow.

The **hardness value** is 118.8 mg/l and the **fifteenth percentile value for TSS** is 21.7 mg/l.

The designated uses and degree of support for Subsegment 060212 of the Vermilion-Teche River Basin are as indicated in the table below[1/]:

Overall Degree of Support for Segment	Degree of Support of Each Use						
Partial	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
	Not Supporting	Full	Not Supporting	N/A	N/A	N/A	N/A

[1/] The designated uses and degree of support for Subsegment 060212 of the Vermilion-Teche River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 060212 of the Vermilion-Teche River Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated January 5, 2010 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation
Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Ms. Darlene Bernard
Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Subsegment 060212, Chatlin Lake Canal and Bayou Dulac-From Alexandria to Bayou des Glaises Diversion Canal; includes a portion of Bayou DeGlaises was listed on the court ordered 303(d) list of impaired waterbodies. The suspected causes of impairment are Suspended solids/turbidity/siltation, Pathogen indicators, Organic Enrichment/low DO, Nitrate + Nitrite as N and Phosphorus. EPA approved three TMDLs for subsegment 060212. They are as follows: Chatlin Lake Canal Bayou Dulac and Bayou Des Glaises DO and Nutrients TMDL on May 2, 2002; TMDL for TSS, Turbidity and Siltation for the Bayou Teche Watershed on May 2, 2002, and Chatlin Lake and Bayou Dulac TMDL for Fecal Coliform on April 25, 2003. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by any future TMDLs.

A water quality screen was performed using the reported ammonia-nitrogen from DMRs over the past three years. The Ammonia-nitrogen chronic criteria was set at 4 mg/l. The screen indicated that this facility does not have the reasonable potential to discharge NH_3-N at levels to cause concern. Therefore, the reporting requirement for ammonia-nitrogen has been removed from this permit.

Suspended solids/Turbidity/Siltation

As per theTMDL, "Point sources do not represent a significant source of TSS as defined in this TMDL. Point sources discharge primarily organic TSS, which does not contribute to habitat impairment resulting from sedimentation. Because the point sources are minor contributors and discharges of organic suspended solids from point sources are already addressed by LDEQ through their permitting of point sources to maintain water quality standards for DO, the wasteload allocations for point source contributions were set to zero. This TMDL only addresses the landform contribution of TSS/sediment and does not address the insignificant point source contributions." Monitoring for total suspended solids (TSS) in wastewater is an effective indicator of the potential presence of suspected solids in a facility's effluent. To protect against the potential for the introduction of suspended solids into the receiving waterbodies, TSS limits have been established in the permit.

Organic enrichment/low DO-Nutrients

As per the TMDL, the projection modeling used to develop the TMDLs showed that nonpoint source (NPS) loads need to be reduced an average of 47% in subsegment 060212 and an average of 58% in subsegment 060207 to maintain the DO standard during the critical period. Reductions of point source oxygen demand were also required. In subsegment 060212, $CBOD_5$ permit limits for the Town of Lecompte STP and Allen Canning were reduced. In subsegment 060207, $CBOD_5$ and ammonia nitrogen limits for the Village of Moreauville STP and $CBOD_5$ limit for the Town of Cottonport were reduced. No changes in permit limits were assumed for the other point source discharges in the study area. Because of their small discharge flows, these discharges did not have as great an effect on the stream DO concentrations. The City of Bunkie was not one of the point source discharges included in the wasteload allocation requiring reductions, therefore, no load reductions from the current permit limits are required in this permit.

Fecal Coliform

As per the TMDL, "The Louisiana Water Quality Regulations require permitted point source discharges of treated sanitary wastewater to maintain a fecal coliform count of 200cfu/100ml in their effluent, i.e., they must meet the standard at end-of-pipe. Therefore, there will be no change in the permit requirements based upon a wasteload allocation resulting from this TMDL".

Interim Effluent Limits:

OUTFALL 001

An interim period is proposed to allow the facility time to attain compliance with the WET limit and the WQBL for chloroform.

Interim limits shall become effective on the effective date of the permit and last through three years from the effective date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
BOD_5	83.4	10 mg/l	15 mg/l	Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy (SSELP) for facilities of this treatment type and size and previous permit conditions.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
TSS	125.1	15 mg/l	23 mg/l	Since there are no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.
Dissolved Oxygen		5 mg/$l_{(min)}$	N/A	Previous permit limit

Priority Pollutants

A water quality screen was performed using the data provided in the permit application. The water quality screen indicated a need for water quality based Chloroform effluent limitations of 0.96 lbs/day monthly average and 2.28 lbs/day daily maximum based upon design capacity of 1.0 MGD. In order to allow facility sufficient time to meet the Chloroform limitation, report is being proposed for this interim period of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Daily Maximum (lbs/day)	Basis
Chloroform	Report	Report	Water Quality Based Limit. See Appendix B-1 for further details. In order to allow the facility sufficient time to meet the chloroform limitation, report is being proposed for this interim period.

The above draft priority pollutant limits for Chloroform are based upon the evaluation of one effluent analysis. The permittee may conduct and submit the results of three (3) or more additional effluent analyses to either refute or substantiate the presence of the above toxic pollutant during the Draft Permit comment period. The additional analyses will be evaluated by this Office to determine if the pollutant is potentially in the effluent and if it potentially exceeds the State's water quality standards.

Other Effluent Limitations:

1) **Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.a, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) **pH**

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C, the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) **Solids and Foam**

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

Final Effluent Limits:

OUTFALL 001

Final limits shall begin three years from the effective date of permit and last through the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
BOD_5	83.4	10 mg/l	15 mg/l	Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy (SSELP) for facilities of this treatment type and size and the previous permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
TSS	125.1	15 mg/l	23 mg/l	Since there are no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.
Dissolved Oxygen	N/A	5 min.	N/A	Previous permit limit

A water quality screen was performed using the data provided in the permit application. The water quality screen indicated a need for water quality based Chloroform effluent limitations of 0.96 lbs/day monthly average and 2.28 lbs/day daily maximum based upon design capacity of 1.0 MGD. Therefore, limitations for Chloroform will be included in this permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Daily Maximum (lbs/day)	Basis
Chloroform	0.96	2.28	Water Quality Based Limit. See Appendix B-1 for further details.

Other Effluent Limitations:

1) **Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.a, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the

water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) **pH**

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C, the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) **Solids and Foam**

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

Toxicity Characteristics

In accordance with EPA's Region 6 Post-Third Round Toxics Strategy, permits issued to treatment works treating domestic wastewater with a flow (design or expected) greater than or equal to 1 MGD shall require biomonitoring at some frequency for the life of the permit or where available data show reasonable potential to cause lethality, the permit shall require a whole effluent toxicity (WET) limit (*Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards*, October 7, 2009 VERSION 7). Whole effluent toxicity testing is the most direct measure of potential toxicity which incorporates the effects of synergism of the effluent components and receiving stream water quality characteristics.

Based on information contained in the permit application and a review of biomonitoring test results required by the previous permit, LDEQ has determined there may be pollutants present in the effluent which may have the potential to cause toxic conditions in the receiving stream in violation of Section 101(a)(3) of the Clean Water Act. Testing since the issuance of the previous permit has demonstrated 3 lethal and 9 sub-lethal test failures for Ceriodaphnia dubia and 1 lethal and 3 sub-lethal test failures for Pimephales promelas. A WET limit is established in the proposed permit to meet narrative criteria which, in part, states that "No substances shall be present in the waters of the State or the sediments underlying said waters in quantities alone or in combination will be toxic to human, plant, or animal life ..." (LAC 33:IX.1113.B.5)

The biomonitoring procedures stipulated as a condition of this permit are as follows:

The permittee shall submit the results of any biomonitoring testings performed in accordance with the LPDES Permit No. LA0020257, **Biomonitoring Section** for the organisms indicated below.

TOXICITY TESTS	FREQUENCY
Chronic static renewal 7-day survival & reproduction test Using Ceriodaphnia dubia (Method 1002.0)	1/quarter
Chronic static renewal 7-day survival & growth test using fathead minnow (Pimephales promelas) (Method 1000.0)	1/quarter

Dilution Series - The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional concentrations shall be 30%, 40%, 53%, 70%, and 94%. The biomonitoring critical dilution and WET Limit is defined as 94% effluent. The critical dilution is

calculated in Appendix B-1 of this fact sheet. Results of all dilutions shall be documented in a full report according to the test method publication mentioned in the **Biomonitoring Section** under Whole Effluent Toxicity. This full report shall be submitted to the Office of Environmental Compliance as contained in the Reporting Paragraph located in the **Biomonitoring Section** of the permit.

X. PREVIOUS PERMITS:

LPDES Permit No. LA0033430: Effective: February 1, 2005
Expired: January 31, 2010

Effluent Characteristic	Discharge Limitations Monthly Avg.	Monthly Avg.	Weekly Avg.	Monitoring Requirements Measurement Frequency	Sample Type
Flow	---	Report	Report	Continuous	Recorder
$CBOD_5$	83.4 lbs/day	10 mg/l	15 mg/l	1/week	3 Hr Composite
TSS	125.1 lbs/day	15 mg/l	23 mg/l	1/week	3 Hr Composite
Ammonia-Nitrogen	Report	Report	Report	1/quarter	3 Hr. Composite
Dissolved Oxygen	---	5 mg/l		1/week	Grab
Fecal Coliform Colonies/100 ml	---	200	400	1/week	Grab
pH	Range (6.0 su – 9.0 su)			1/week	Grab
Biomonitoring					
Pimephales promelas	--- Report	Report	---	1/quarter	24 Hr Comp
Ceriodaphnia dubia	--- Report	Report	---	1/quarter	24 Hr Comp

The permit contains biomonitoring.
The permit contains pollution prevention language.
The permit contains pretreatment option 1 language.

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

A review of the files indicates the following most recent inspections performed for this facility.

Date – September 8, 2008
Inspector - LDEQ
Findings and/or Violations –

Hurricane Assessment Inspection was performed to assess the damage caused by Hurricane Gustav. Facility lost power for approximately 8 hours. There was no flooding at facility. There was no release from equipment/tanks/etc. Facility was operating at the time of inspection.

B) Compliance and/or Administrative Orders

A review of the files indicates that no recent enforcement actions have been administered against this facility.

C) **DMR Review**

A review of EDMS revealed the following information from Discharge Monitoring Reports from January, 2008 to December, 2009:

Date	Parameter	Permit Limit	Reported Value
01-08	TSS (weekly avg.)	23 mg/l	28 mg/l
09-08	$CBOD_5$ (weekly avg.)	15 mg/l	18 mg/l
10-09	TSS (monthly avg.)	15 mg/l	16 mg/l
	TSS (weekly avg.)	23 mg/l	31 mg/l

XII. ADDITIONAL INFORMATION:

The Louisiana Department of Environmental Quality (LDEQ) reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's. The LDEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as requested by the permittee and/or as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

This permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(c) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act, if the effluent standard or limitations so issued or approved:

a) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

b) Controls any pollutant not limited in the permit; or

c) Requires reassessment due to change in 303(d) status of waterbody; or

d) Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving waterbody.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 1.0 MGD.

Effluent loadings are calculated using the following example:

$CBOD_5$: 8.34 gal/lb x 1.0 MGD x 10 mg/l = 83.4 lbs/day

The Monitoring Requirements, Sample Types, and Frequency of Sampling for the facility are described

below:

Effluent Characteristics		Monitoring Requirements Measurement Frequency	Sample Type
Flow		Continuous	Recorder
BOD_5		1/week	3 Hr. Composite
Total Suspended Solids		1/week	3 Hr. Composite
Chloroform		1/quarter	24 Hr. Composite
Dissolved Oxygen		1/week	Grab
Fecal Coliform Bacteria		1/week	Grab
pH		1/week	Grab
Biomonitoring	Ceriodaphnia dubia	1/quarter	24 Hr. Composite
	Pimephales promelas	1/quarter	24 Hr. Composite

Pretreatment Requirements

Based upon consultation with LDEQ pretreatment personnel, LDEQ Option1 Pretreatment Language is required for this facility.

Pollution Prevention Requirements

The permittee shall institute or continue programs directed towards pollution prevention. The permittee shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility. The permittee will complete an annual Environmental Audit Report **each year** for the life of this permit according to the schedule below. The permittee will accomplish this requirement by completing an Environmental Audit Form which has been attached to the permit. All other requirements of the Municipal Wastewater Pollution Prevention Program are contained in Part II of the permit.

The audit evaluation period is as follows:

Audit Period Begins	Audit Period Ends	Audit Report Completion Date
Effective Date of Permit	12 Months from Audit Period Beginning Date	3 Months from Audit Period Ending Date

Stormwater Discharges

Because the design flow of the City of Bunkie Wastewater Treatment Plant is equal to or greater than 1.0 MGD and in accordance with LAC 33:IX.2511.B.14.i, the facility may contain storm water discharges associated with industrial activity. Therefore, in accordance with LAC 33:IX.2511.A.1.b, specific requirements addressing stormwater discharges will be included in the discharge permit.

XIII TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

XIV REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2009.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 2006.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards", Louisiana Department of Environmental Quality, 2009.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program", Louisiana Department of Environmental Quality, 2009.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, City of Bunkie, City of Bunkie Wastewater Treatment Plant, July 31, 2009.